

Application No. 09/763,515
Amendment dated January 20, 2006
Reply to Office Action of October 21, 2005

Docket No.: 21900-00021-US

AMENDMENTS TO THE CLAIMS

Claims 1-9 cancelled.

10. (Currently Amendment) A security thread comprising:
a core member selectively having either—
a) a fiber made of a soft magnetic material having permeability of 1000 or more, or
b) a fiber made of a soft magnetic material having permeability of 1000 or more and a
core thread bundled with the fiber and coextensive therewith; and
a cover member made of a nonmetal material covering said core member.
11. (Currently Amendment) A security thread comprising:
a core member selectively having either—
a) a fiber made of a soft magnetic material having permeability of 1000 or more, or
b) a fiber made of a soft magnetic material having permeability of 1000 or more and a
core thread bundled with the fiber and coextensive therewith;
a member contacting said core member and made of a semi-hard magnetic material
which can deactivate the magnetic characteristic of the soft magnetic material; and
a cover member made of a nonmetal material covering said core member and said
member made of said semi-hard magnetic material.
12. (Currently Amendment) A security thread comprising:
a core member selectively having either—
a) a fiber made of a soft magnetic material having permeability of 1000 or more, or
b) a fiber made of a soft magnetic material having permeability of 1000 or more and a
core thread bundled with the fiber and coextensive therewith;
a thermal welding thread contacting said core member; and
a cover member made of a nonmetal material covering said core member and said
thermal welding thread.

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13. (Currently Amendment) A security thread comprising:
a core member selectively having either --
a) a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse, or
b) a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse and a core thread bundled with the fiber and coextensive therewith; and
a cover member made of a nonmetal material covering said core member.
14. (Currently Amendment) A security thread comprising:
a core member selectively having either --
a) a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse, or
b) a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse and a core thread bundled with the fiber and coextensive therewith;
a member contacting said core member and made of a semi-hard magnetic material which can deactivate the magnetic characteristic of the soft magnetic material; and
a cover member made of a nonmetal material covering said core member and said member made of said semi-hard magnetic material.
15. (Currently Amendment) A security thread comprising:
a core member selectively having either --
a) a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse, or
b) a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse and a core thread bundled with the fiber and coextensive therewith;

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a thermal welding thread contacting said core member; and
a cover member made of a nonmetal material covering said core member and said thermal welding thread.

16. (Previously Presented) The security thread according to any one of claims 10 to 15 wherein said soft magnetic material is made of an amorphous metal.

17. (Previously Presented) The security thread according to claim 16, wherein said amorphous metal is mainly made of Co-Fe-Si-B.

18. (Previously Presented) The security thread according to any one of claims 10 to 15 wherein said soft magnetic material is made of an amorphous metal ribbon.

19. (Previously Presented) The security thread according to claim 18, wherein said amorphous metal ribbon is mainly made of Co-Fe-Si-B.

20. (Previously Presented) The security thread according to any one of claims 10 to 15 wherein said soft magnetic material is made of a Permalloy.

21. (Previously Presented) The security thread according to any one of claims 10 to 15 wherein said soft magnetic material is made of an Fe-Si based alloy.

22. (Previously Presented) A manufacturing method of a security thread comprising the steps of:

preparing a core member having a fiber made of a soft magnetic material having permeability of 1000 or more, or a fiber made of a soft magnetic material having permeability of 1000 or more and a core thread; and

covering a periphery of said core member by a cover member made of a nonmetal material.

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23. (Previously Presented) A manufacturing method of a security thread comprising the steps of:

preparing a core member having a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse, or a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse and a core thread; and covering a periphery of said core member by a cover member made of a nonmetal material.

24. (Previously Presented) A manufacturing method of a security thread comprising the steps of:

preparing a core member having a fiber made of a soft magnetic material having permeability of 1000 or more, or a fiber made of a soft magnetic material having permeability of 1000 or more and a core thread;

disposing a member to be in contact with said core member and made of a semi-hard magnetic material which can deactivate the magnetic characteristic of the soft magnetic material; and

covering a periphery of said core member and said member made of said semi-hard magnetic material by a cover member made of a nonmetal material.

25. (Previously Presented) A manufacturing method of a security thread comprising the steps of:

preparing a core member having a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse, or a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse and a core thread;

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disposing a member to be in contact with said core member and made of a semi-hard magnetic material which can deactivate the magnetic characteristic of the soft magnetic material; and

covering a periphery of said core member and said member made of said semi-hard magnetic material by a cover member made of a nonmetal material.

26. (Previously Presented) A manufacturing method of a security thread comprising the steps of:

preparing a core member having fiber made of a soft magnetic material material permeability of 1000 or more, or a fiber made of a soft magnetic material having permeability of 1000 or more and a core thread;

disposing a thermal welding thread to be in contact with said core member; and
covering a periphery of said core member and said thermal welding thread by a cover member made of a nonmetal material.

27. (Previously Presented) A manufacturing method of a security thread comprising the steps of:

preparing a core member having a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse, or a fiber made of a soft magnetic material indicating a magnetic characteristic with a large Barkhausen discontinuity to rapidly cause magnetization reverse and a core thread;

disposing a thermal welding thread to be in contact with said core member; and
covering a periphery of said core member and said thermal welding thread
by a cover member made of a nonmetal material.